Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 97	)	RM-11305
Of the Commission's Rules	)	
Governing the Amateur	)	
Radio Service	)	

To the Commission:

Comments of Nickolaus E. Leggett, N3NL
Amateur Radio Operator

The following are formal comments on the petition filled by the Communications Think Tank. I am a certified electronics technician (ISCET and NARTE) and an Extra Class amateur radio operator (call sign N3NL). I have a Master of Arts degree in Political Science from the Johns Hopkins University. I am also an inventor holding three U.S. Patents. My latest patent is a wireless bus for digital devices (U.S. Patent # 6,771,935).

The petition filed by the Communications Think Tank is in direct competition to the petition filed by the ARRL, Amendment of Part 97 of the Commission's Rules Governing the Amateur Radio Service concerning Permitted Emissions and Control Requirements (RM-11306). The Communications Think Tank (CTT) wants to eliminate all legally specified sub bands within the amateur radio service high frequency (short wave) allocations. The ARRL wants to change the definition of the existing sub bands from a mode basis to a bandwidth basis.

Requirements for the Success of the CTT Petition

The CTT petition requires the presence of very effective consensus agreements on what sub bands should be used by different radio communications modes. This is because the different communications modes such as single side band (SSB) voice, digital voice, continuous wave (CW – Morse Code), etc. are not particularly compatible with each other. If these various modes are just dumped together in a single band, difficult interference would result with little effective communication being carried out. For example, mixing CW and SSB signals results in "Donald Duck" sounds in the CW receivers and CW tones in the SSB receivers.

Historically, this problem has been managed by FCC regulations that specify sub bands that segregate incompatible modes. These sub bands have served the public interest by maintaining technical diversity within the amateur radio service and protecting transmission modes used by a minority from being swamped by the majority's modes. If the FCC regulated sub bands are eliminated, they need to be replaced with effective consensus agreements among amateur radio operators on the proper usage of ham radio sub bands.

Actual Experience with Consensus Agreements

Such consensus agreements are called gentlemen's agreements. They are used in some nations' amateur radio services, and on the 160 meter band within the United States. These agreements work well where there are small

numbers of operators involved, and the local culture is strongly supportive of a polite and gentlemanly approach. These gentlemen's agreements have significant difficulties when there is major overcrowding of a highly forceful population of operators.

Most of the American high frequency amateur radio bands are highly overcrowded with a resulting strain on any gentlemen's agreements. Today's amateur radio is rather like driving on the Beltway during rush hour. The significant overcrowding puts a real strain on the activity of polite and restrained driving.

The Petition without Gentlemen's Agreements

If the CTT petition is established without effective gentlemen's agreements, the most popular modes will expand throughout the amateur radio bands at the expense of the other modes. With the current technology, high power SSB voice transmissions will displace almost all other communications modes except for a few islands of high power CW communications. Low power and weak signal communications will be lost in the mode battle between higher power stations. Less commonly used modes will be swamped by the majority's enthusiasm for high power SSB. This loss would be significant because weak signal and unusual modes help to increase operator skills and they provide an opportunity for technological development.

In the future, digital voice would come along and force aside SSB and other modes throughout the entire amateur radio bands.

In contrast, the ARRL's petition (RM-11306) offers a high flexibility in modes used and still protects the minority, from the excesses of the majority, through the force of FCC regulations. I have submitted comments in favor of the ARRL petition and include them here by reference.

Bias in the Wrong Direction

The CTT petition will produce a bias in favor of wide bandwidth communications modes. This is exactly the wrong bias for the overcrowded amateur radio bands. If a bias is present in the rules, it should be in favor of narrow bandwidth communications modes. For example, a given amateur radio frequency band will support more 200 Hertz bandwidth communications sessions than 3000 Hertz bandwidth communications sessions. Thus with the lower bandwidth communications, more operators can be accommodated at any one time.

Stability Advantages of the ARRL Petition

The ARRL's petition offers the strong advantage of allowing orderly and flexible growth and development within the amateur radio service with very little need for redefining the regulations as technology changes. In contrast, the CTT petition has the risk of instability along with an increased need for regulatory intervention and revision.

Recommended Action

Please dismiss the CTT petition. It is not a constructive solution for the current situation on American high frequency amateur radio.

Respectfully submitted,

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